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### ***Just remember this*: Lexicogrammatical relevance markers in lectures**

This paper presents a comprehensive overview of lexicogrammatical devices which highlight important or relevant points in lectures. Despite the established usefulness of discourse organizational cues for lecture comprehension and note-taking, very little is known about the marking of relevance in this genre. The current overview of lexicogrammatical relevance markers combines a qualitative and quantitative investigation of 160 lectures from the British Academic Spoken English (BASE) corpus. These markers could mostly be classified according to their main element into adjective, noun, verb and adverb patterns. Verb patterns were the most common, followed by noun patterns. The verb pattern V clause (e.g. *remember slavery had already been legally abolished*) and the noun pattern MN v-link (e.g. *the point is*) are the predominant types of relevance markers. The discrepancy between the prevalent markers and what may be thought of as prototypical or included in EAP textbooks as relevance markers also demonstrates the need for corpus linguistic research. Implications for EAP course design, teaching English for lecturing purposes, and educational research are discussed.

Keywords: lecture, relevance markers, information highlighting, EAP, academic listening, lecturer training

## 1. Introduction

A growing number of non-native speakers need to deliver and to understand lectures in English due to the internationalization of tertiary education, the establishment of English as the 'lingua academica' (Phillipson, 2008, p. 250; Jenkins, 2011) and the continuing importance of the lecture. These international lecturers, teaching assistants and students may benefit from English courses tailored to meet their particular communicative needs in lectures. This corpus-based study adds to our knowledge of lecture discourse by reporting on ways in which important points are highlighted. In this way, we aim to inform the design of such courses by providing an overview of authentic relevance markers that can be used to help students identify important points and that may assist lecturers or teaching assistants in marking these effectively.

Since the knowledge gained from lectures forms a critical part of assessment and thus academic success, it is important to ensure they are sufficiently understood to allow adequate note-taking, assimilation and recall. An essential aspect of successful lecture comprehension and delivery is the ability to distinguish between important and less important information (Flowerdew, 1994; Kiewra, 2002; Mulligan & Kirkpatrick, 2000; Lynch, 1994; Tyler, 1992). Yet, both native and non-native speakers are reported to have significant difficulties in discerning the main lecture points. In fact, some note-taking studies have found that native speakers generally only record up to 40% of the main points (see Titsworth & Kiewra, 2004 for an overview). Non-native speakers' comprehension and note-taking can additionally be compromised by inadequate understanding of English, by the lecturer's speech rate (Nesi, 2001) and pronunciation (Williams, 1992), and by differences in discourse expectations, background knowledge and educational culture (Duszak, 1997; Flowerdew & Miller, 1996; Nesi, 2001). However, even those with apparently adequate language skills may fail to identify the overall lecture structure and main points (Clerehan, 1995; Olsen & Huckin, 1990; Allison & Tauroza, 1995).

Discourse organizational cues have widely been advocated as a significant means of improving lecture comprehension, note-taking and recall (e.g. Allison & Tauroza, 1995; Björkmann, 2011; DeCarrico & Nattinger, 1988; Jung, 2003; Kiewra, 2002; Lynch, 1994; Titsworth & Kiewra, 2004; Tyler, 1992; Williams, 1992). Nevertheless, surprisingly little is

known about the verbal cues used to highlight important or relevant information. The main study so far is by Crawford Camiciottoli (2004, 2007), who identified 12 lexicogrammatical patterns functioning as ‘audience-oriented relevance markers’ in a small corpus of Business Studies lectures. These contain relevance adjectives (e.g. *important*), metalinguistic nouns (e.g. *point*), determiners, deictics (e.g. *this*), *it* (e.g. *it is crucial that*), *what* (e.g. *what is important is*) and *there* (e.g. *there’s an issue here about*).

This investigation uses the British Academic Spoken English (BASE) corpus<sup>1</sup> to present the most comprehensive account to date of how lectures highlight important information using overt lexicogrammatical devices. The findings provide valuable input for EAP listening courses, lecturer training programmes and experimental studies on lecture comprehension and note-taking.

## 2. Relevance markers

‘Relevance markers’ (a term adopted from Hunston 1994, p. 198) are here defined as lexicogrammatical devices that overtly mark the relative importance or relevance of points which are presented verbally or visually. They are metadiscursive devices which can be considered an interactive feature of lecture discourse as they accommodate the audience’s need for guidance in distinguishing between more and less important discourse. Crawford Camiciottoli (2004, 2007) hence calls these ‘audience-oriented relevance markers’; other terms include ‘emphasis markers’ (Jung, 2003), ‘emphatics’, (Bondi, 2008), ‘emphasizers’ (Siepmann, 2005), ‘importance cues’ (Kiewra, 2002), ‘saliency markers’ (Heino, Tervonen & Tommola, 2002), ‘selection cues’ (Titsworth & Kiewra, 2004), ‘focus formulas’ (Tuggy, 1996), and ‘focusers’ (Simpson, 2004). They have also been included in such categories as ‘text-structuring metadiscourse’ (Thompson, 2003), ‘macromarkers’ (Chaudron & Richards, 1986), ‘pragmatic force modifiers’ (Lin, 2010), ‘metapragmatic signals’ (Flowerdew, 1994),

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<sup>1</sup> The recordings and transcriptions used in this study come from the British Academic Spoken English (BASE) corpus. The corpus was developed at the Universities of Warwick and Reading under the directorship of Hilary Nesi and Paul Thompson. Corpus development was assisted by funding from BALEAP, EURALEX, the British Academy and the Arts and Humanities Research Council. The corpus is available from the Oxford Text Archive <http://ota.ox.ac.uk/headers/2525.xml>.

‘identification/focus bundles’ and ‘attitudinal stance bundles’ (Biber, 2006a), ‘evaluators’ (DeCarrico & Nattinger, 1988), and ‘evaluation phase’ (Young, 1994).

Relevance markers organize discourse by establishing a hierarchy of importance of lecture points (Deroey & Taverniers, 2011) and present the lecturer’s attitudinal evaluation of these along a ‘parameter of importance or relevance’ (Thompson & Hunston, 2000, p. 24). This combined function is central to our definition of relevance markers. On the one hand, we have focused on the evaluation of ‘discourse entities’ (Thetela, 1997, cited in Hunston, 2000, p. 182), i.e. evaluation on the ‘interactive plane’ of discourse (Sinclair, 2004). Thus *an important point* is considered an instance of discourse evaluation, while *an important philosopher* is disregarded because *important* here evaluates a ‘world entit[y]’ (Thetela, 1997, cited in Hunston, 2000, p. 182) and so exemplifies evaluation on the ‘autonomous plane’ of discourse (Sinclair, 2004). In other words, we are interested in instances of evaluation where the lecturer acts as ‘text constructor’ rather than ‘informer’ (Hunston, 2000, p. 183). On the other hand, discourse organizational cues without evaluation of importance (e.g. *the next point is*) were also not taken into account.

### **3. Methodology**

#### *3.1. Corpus*

The relevance markers were drawn from the 160 lectures of the British Academic Spoken English (BASE) Corpus. These are mostly delivered by native speakers of English and are distributed across four broad disciplinary groups: Arts and Humanities (ah), Social Studies (ss), Physical Sciences (ps) and Life and Medical Sciences (ls). A subcorpus of 40 lectures, ten per disciplinary group, was created for the initial manual search of relevance markers; study level, interactivity, and audience size were systematically varied.

#### *3.2. Analytical procedure*

In a pilot study of four lectures from the subcorpus, we independently identified lexicogrammatical devices which appeared to highlight points. Subsequent comparison and discussion refined our inclusion criteria in four main ways. First, ‘pure’ discourse

organizational cues without evaluation were excluded (1). Although they may help identify the main points (Swales, 2001), they lack an explicit marking of relevance.

- (1) so *one of the questions that arises* what do i really mean by better adapted (Islct001)<sup>2</sup>

A second complicating factor in the analysis was distinguishing between the evaluation of discourse entities and world entities. While this distinction is arguably artificial, it is inherent to quantitative research on metadiscourse. For this study, we excluded instances where disambiguation using the transcript only was impossible.<sup>3</sup> In (2), for example, it is unclear whether *the thing* is used discussively (meaning ‘a point’) or non-discussively (meaning ‘a feature’) (cf. Swales 2001).

- (2) they certainly haven't got any hair nude mice have no hair but that's not the important thing *the important things about nude mice* is that they don't have a thymus (Islct006)

In a similar way, we excluded instances where the evaluated world entity is the discourse topic, as in (3).

- (3) now then so we have metal-hydrogen *metal-hydrogen is a very important reaction* and it's really based on the fact that the organometallic compounds let's say of lithium are very sensitive (pslct003)

Third, relevance marking of student or third party discourse (e.g. *an important point that Nozick makes is*) was excluded, as strictly speaking this does not highlight the lecturer's discourse. Admittedly, however, much lecture discourse is a representation of other people's discourse and the exclusion here pertains only to instances which are attributed. Fourth, it was impossible to exclude reliably the highlighting of information presented visually (e.g. in slides and handouts, on the board). The inclusion of instances of such ‘metasemiotic’ evaluation (Baldry & Thibault, 2006, p. 99) is moreover important in creating

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<sup>2</sup> Note that the first person singular pronoun in examples is rendered as it occurs in the lecture transcripts, that is, in lower case.

<sup>3</sup> With hindsight, however, it might have been better to adopt Swales' (2001) system of including a ‘hard to classify’ category for such cases.

a representative picture of relevance marking in this genre, as visuals are an integral part of lecture delivery.

Using a definition of relevance markers refined by the above considerations, a close reading by the first author of the other 36 lectures in the subcorpus yielded further lexemes which could mark relevance. These were then retrieved from all 160 lectures using the concordancing tool Sketch Engine. In this, as in all other searches, co-text beyond the concordance was examined as necessary to determine whether a lexeme functioned as (part of) a relevance marker. Ungrammatical and disfluent instances were retained if analysable. Further candidates for relevance marking in the immediate co-text and in a frequency list of words with  $\geq 50$  occurrences in the BASE lectures were also searched. Additionally, a few relevance adjectives were adopted from Swales and Burke (2003) and Crawford Camiciottoli (2004) and the adjective- and noun-based lexicogrammatical patterns of relevance markers listed in Crawford Camiciottoli (2007, p. 98) were searched empty (i.e. without specifying particular adjectives or nouns) using corpus query language to identify further lexis. Finally, we searched words which were derived from or synonymous with lexemes found through the above procedures (cf. Giannoni, 2010). This multi-pronged approach yielded adjectives, metalinguistic nouns, verbs and adverbs which could function as or in relevance markers and which generally appeared in recurring lexicogrammatical patterns (see Results and Discussion). Interestingly, most lexemes were retrieved manually from the subcorpus and all approaches were complementary. For instance, the word frequency list yielded adverbs which were not found in the subcorpus but did not contain multi-word items attested in the lectures (e.g. *bear in mind*, *bottom line*). To further temper some of the subjectivity that is inevitable in analysing evaluation, a sample of 120 instances of these patterns was independently rated for their status as relevance markers by the second author. After discussion, full agreement was reached on their in-or exclusion as relevance markers.

Two limiting factors in the analysis should be noted. As we have used transcripts only, visual, non-verbal and prosodic clues were not taken into account. Furthermore, as is typical for research on ready-made corpora, there was no triangulation, so that we do not know what information the lecturer intended to highlight or what was perceived as important. Our account is thus based on 'judgments of plausibility rather than certainty' (Mann & Thompson, 1988, cited in Siepmann, 2005, p. 22).

## 4. Results and Discussion

The methodology and definition used here yielded 785 instances of relevance markers, or approximately seven instances per 10 000 words.<sup>4</sup> However, this average conceals considerable variation as about half the lectures contain fewer than four instances and about a sixth contain ten or more. Although it would be interesting to explore this and other idiolectic and disciplinary variation, this is beyond the scope of this article.

An inspection of the concordances uncovered similarities in the elements and structure of relevance markers that could be represented as patterns (Hunston & Francis, 2000). Depending on their main element, or ‘focus’ (Hunston & Francis, 1998, p. 49.), relevance markers were classified with a particular adjective, noun, verb, or adverb pattern. To keep the overview transparent and practitioner-friendly, we have adopted a fairly generalizing approach to this classification. Postmodification (e.g. *about that*) and ellipsis (of the link verb or determiner) are not specified in the pattern, so that (4) is classified as **MN v-link** (a metalinguistic noun with the link verb *is*).

(4) *and the point about that it holds for all sets A* (pslct025)

Instances with embedding have also been simplified so that (5) and (6) are respectively viewed as variants of **2 pers pron V n** (second person pronoun, verb, nominal complementation) and **there v-link adj MN** (*there*, link verb, adjective, metalinguistic noun).

(5) *it's the only number you need to remember* (lslct033)

(6) *there's something very important to note about this* (pslct010)

The category ‘assessment-related expressions’ (cf. section 4.5) contains the few instances which did not fit these patterns.

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<sup>4</sup> The average BASE lecture contains ca. 7 500 words.

**Table 1**

Relevance markers: main pattern types and expressions, with examples and frequency (N=785).

Pattern types	Examples	Frequency	(%)
Adjective patterns	that's quite quite important (lslct040)	57	(7.3)
Noun patterns	this is the important point (lslct008)	286	(36.4)
Verb patterns	i want to emphasize this (ahlct034)	420	(53.5)
Adverb patterns	<i>significantly</i> this is made out of virtually one block of Carrara marble (ahlct004)	15	(1.9)
Expressions	it's something we can sort of ask exam questions on (pslct011)	7	(0.9)

As can be seen in Table 1, verb patterns are overwhelmingly the most frequent relevance markers, followed by noun patterns. This predominance is largely due to the prevalence of **V clause** (verb with clausal complementation) (7) and **MN v-link** (8).

(7) remember slavery had already been legally abolished (ahlct008)

(8) the point is that people can't do that (sslct028)

The main words in adjective, noun, verb and adverb patterns are respectively *important*, *point*, *remember* and *importantly* (see Appendix for a full list of focus elements).

Relevance markers further vary in their textual and interactive orientation (see Table 2).

**Table 2**

Textual and interactive orientation of relevance markers: types and examples.

Orientation	Types	Examples
Textual orientation	Prospective marking	the very important thing to get clear in your mind is it doesn't matter what the number is (pslct013)
	Retrospective marking	it's something we can sort of ask exam questions on (pslct011)
Interactive orientation	Listener-oriented	remember Rawls criticizes utilitarianism (sslct028)
	Speaker-oriented	i just want to point out here that it's not just your arterioles (lslct005)
	Listener and speaker-oriented	we should note that the process only takes place after a lengthy period of instruction (ahlct032)
	Content-oriented	this is absolutely crucial (lslct038)



Interestingly (and reassuringly), most highlight following points. Such prospective marking is likely to benefit online processing and note-taking and also reflects the (semi-) planned nature of lectures. Typically, the highlighted statement is included in the clause containing the relevance marker (9); alternatively, it is encapsulated by a deictic and subsequently stated in full (10).

(9) note that in Spenser the weather is always there (ahlct010)

(10) *the point is this* in in many member states in the European Communities as they then were accounting regulation is entirely by law (sslct007)

Retrospective relevance markers are considerably less common and are chiefly restricted to patterns containing a deictic with anaphoric reference.

(11) he was very largely influenced by his religious upbringing and *that's important to know* (ahlct024)

In a few cases, a restatement of the highlighted discourse follows retrospective relevance marking. An especially strong highlighting effect is created when an immediately preceding point is restated.

(12) such action as it deems necessary now this is an essential point *such action as it deems necessary* (sslct019)

In this regard, it is also noteworthy that relevance markers often co-occur with discourse markers (mainly *and*, *but*, *now*, and *so*) (cf. (12)). To some extent this reflects the position of many relevance markers at transition points but some discourse markers may also have an attention-focusing effect (cf. Brinton, 1996).

Interactively, relevance markers are orientated towards the listeners, the speaker, the listeners and speaker jointly, or the content. About half are listener-orientated, including pronouns referring to the listener and/or verbs denoting listener actions (13). Speaker-orientated markers refer to the speaker and/or contain verbs denoting speaker actions (14). Some patterns combine both listener- and speaker-orientation (15). Content-orientated relevance markers contain no such references or verbs (16).

(13) so you have to remember this part is permeable to water (lslct029)

(14) i ought to stress that i'm talking about vectors here (pslct031)

(15) so we're interested in the gradient here (pslct030)

(16) that's an important point (sslct003)

These differences in textual and interactive orientation also affect the clarity and possibly effectiveness of relevance marking: for instance, prospective, listener-orientated marking (13) often seems the clearest. Clarity may also vary with explicitness. For example, instances with relevance adjectives (16) mark relevance explicitly, while those which are multifunctional (e.g. *the thing is*) or contain polysemous lexemes (e.g. *note*) are arguably harder to recognize as signaling relevance and seem more 'muted signals' (Swales & Burke, 2003, p. 17).

#### 4.1. Adjective patterns

In adjective patterns the main element is an adjective (ADJ) conveying relevance. Adjectives expressing another type of evaluation in addition to relevance such as *crucial* (cf. Swales & Burke, 2003) and *interesting* (cf. Crawford Camiciottoli, 2004; Peacock, 2011) were included where the co-text suggests a primary relevance reading. For example, in (17) *that said, to notice*, and the *that*-clause suggest 'it is interesting to notice' functions as a relevance marker.

(17) so we cannot get along without either of them have to have both in order to cope best with pathogens that said it's interesting to notice that you only get adaptive immunity in in vertebrates (lslct036)

To represent the surface patterning of similar concordances, Hunston and Francis' (2000) notation system is used: the pattern focus is in upper case, other elements are in lower case and lexemes are in italics. For simplicity's sake, the overview does not specify the type of clausal or nominal complementation.

**Table 3**

Adjective patterns, examples and frequency (N=57).

Adjective patterns	Examples	Frequency	(%)
deic v-link ADJ	this is absolutely crucial (Islct038)	15	(26.3)
mn v-link ADJ	that point about elitism is quite important (sslct003)	2	(3.5)
<i>it</i> v-link ADJ clause	it's important to note this is further subdivided (Islct027)	36	(63.2)
<i>what</i> v-link ADJ v-link n/clause	what's interesting to think about is how exactly is this Italianness constructed (ahlct015)	4	(7)

The adjectives are used predicatively (see Table 3): a verb (v-link) links the adjective to a deictic (deic), metalinguistic noun (mn), anticipatory *it*, or *what*. In extraposition constructions, the adjective precedes a clause; in *wh*-clefts, it precedes nominal ('n') or clausal complementation.

Although adjectives are considered prototypical realisations of evaluation (e.g. Swales & Burke, 2003), adjective patterns are in fact comparatively infrequent relevance markers (ca. 7%). *Important*, which has been associated with academic prose (Biber et al., 1999, p. 517; Swales & Burke, 2003), predominates as the focus. The rare cases of adjectival premodification (e.g. *absolutely*, *very*) are mainly restricted to this adjective. The predominant pattern ***it* v-link ADJ clause** represents cases of extraposition. Surprisingly, in Crawford Camiciottoli's study (2004, 2007) of relevance markers in 12 Business Studies lectures and 10 multi-disciplinary lectures from MICASE<sup>5</sup> this pattern is infrequent. Instead, the most frequent pattern there is **deic v-link ADJ**, which in BASE was far less common as a relevance marker than extraposition. It is, however, generally difficult to draw conclusions from a comparison with those studies as Crawford Camiciottoli's corpus is much smaller and more homogeneous in disciplinary terms and as the information on search methods and inclusion criteria provided does not allow us to establish methodological causes that may account for different findings.

<sup>5</sup> The Michigan Corpus of Academic Spoken English (MICASE) was developed by researchers and students at the English Language Institute at the University of Michigan in Ann Arbor (Simpson, Briggs, Ovens, & Swales, 2002). The corpus is available from <http://micase.elicorpora.info/>.

#### 4.1.1. *deic v-link ADJ*

This infrequent pattern is one of the few retrospectively orientated ones: an anaphoric deictic (usually *this* or *that*) creates cohesion by encapsulating a preceding statement and making it available for evaluation (Gray, 2010). About half the instances contain adjectives with *to*-infinitive clauses conveying the mental action to be performed by the listener.

(18) that's important to know (ahlct024)

#### 4.1.2. *mn v-link ADJ*

In the rare pattern **mn v-link ADJ**, a metalinguistic noun encapsulates a preceding point which is evaluated as relevant.

(19) this thing here is important (pslct011)

In common with **deic v-link ADJ**, this encapsulation creates cohesion but would also seem to require more processing effort, as the listener has to infer the referent.

#### 4.1.3. *it v-link ADJ clause*

This prevalent pattern has previously been reported to typically contain evaluative adjectives (e.g. Hunston & Sinclair, 2000; Peacock, 2011) and to emphasize noteworthy points (Hewings & Hewings, 2001). It appears particularly listener-friendly in that it extraposes a relatively long subject, signals important points prospectively and explicitly, and renders the highlighted discourse completely. The chief adjectives are *important* and *worth*. Anticipatory *it* mainly projects non-finite clauses with verbs denoting the speaker's communicative actions (20) or the listeners' mental actions (21).

(20) it's important to say that it's actually quite rare (sslct016)

(21) it's worth remembering that Italy has a huge history (ahlct015)

#### 4.1.4. *what v-link ADJ v-link n/clause*

Although basic *wh*-clefts are common in the BASE corpus and serve an important highlighting function (Deroey, in press), instances with relevance adjectives in the *wh*-clause are rare.

- (22) what is important to grasp is that our immune system can actually respond to almost anything (lslct036)

#### 4.2. *Noun patterns*

As shown in Table 4, in noun patterns the focus is a metalinguistic noun (MN), which is sometimes premodified by a relevance adjective.

**Table 4**

Noun patterns, examples and frequency (N=286).

Pattern types	Examples	Frequency	(%)
deic v-link MN	that's the message (pslct006)	23	(8)
deic v-link adj MN	that's the key point here (pslct034)	26	(9.1)
MN v-link	the point is by chance these two structures are similar (lslct011)	162	(56.6)
adj MN v-link	the key point is they do not give up those natural rights (sslct017)	63	(22)
<i>there</i> v-link MN	there's a few other points to just bear in mind (lslct039)	9	(3.2)
<i>there</i> v-link adj MN	there are two main ideas that you need to keep in mind (ahlct024)	3	(1.1)

These patterns mostly signal relevance prospectively. The attested metalinguistic nouns are *idea*, *point*, *question*, and *thing* (see also Crawford Camiciottoli, 2004, 2007; Swales, 2001) and the conversationally flavoured *bit* (23), *bottom line*, *message* and *moral*.

- (23) the important *bit* is that if it's an algebraic integer then the absolute value of this quotient is nought (pslct037)

Such nouns encapsulating discourse have also been called ‘signalling nouns’ (Flowerdew, 2003), ‘discourse labels’ (Francis, 1994), ‘anaphoric nouns’ (Francis, 1986, cited in Schmid, 2000), ‘general nouns’ (Halliday & Hasan, 1976) and ‘shell nouns’ (Hunston & Francis, 2000; Schmid, 2000). *Point* (125 instances) is the most frequent, followed by *thing* (63 instances). The prevalence of *point* may reflect the point-driven organization of lectures (see Olsen & Huckin, 1991); however, it partly also reflects the comparative ease with which metadiscursive uses of *point* can be distinguished from those with other meanings (e.g. ‘purpose’) (24).

(24) the point is for you to develop your own scholarship (ahlct015)

*Important* is again the predominant adjective (38 instances), followed by *key* (26 instances). In addition to the adjectives which also occur in adjective patterns, other adjectives and modifiers were found, some of which are reminiscent of conversational speech: *basic, big, critical, essential, go/take home, key, main, vital* and *whole* (25-26).

(25) and *big* message here allow the markets to function (sslct001)

(26) that's a sort of *take home* message (lslct003)

Premodification of the adjective is rare, but postmodification by a prepositional phrase (27) or relative clause is common. Clausal postmodification can contain language which suggests a relevance reading or reinforces the highlighting effect (28). To keep the study manageable, however, these have not been separately investigated or counted.

(27) but the bottom line *of this* is from what impression is this pretended this supposed idea derived (ahlct037)

(28) so the moral *to remember all the time* is that just occasional amino acids at key points in a protein can determine the three-dimensional structure (lslct033)

Most instances contain the determiner *the; a, another* and determiner ellipsis (29) are rare, as are postdeterminers (e.g. *first*).

(29) so *first* important point is that Searle is going to be attacking cognitivism (ahlct035)

A noteworthy element in the right co-text of some noun-based relevance markers is *here*, which can add saliency to a point that is presented verbally (30) or visually (31) (Bamford, 2004).

(30) okay so that that's i think the the the main point *here* about how these films are placed within the film industry (ahlct016)

(31) this diagram is taken from that text where you see if you just take a brief look in the the the main idea *here* is that we really have a variety of different basic production models (sslct030)

#### 4.2.1. *deic v-link MN* and *deic v-link adj MN*

These equally frequent patterns highlight prior discourse which is encapsulated by a deictic. This retrospective relevance marking is often followed by a restatement of the highlighted point, creating a 'sandwiching' effect and making points particularly salient.

(32) Mussolini isn't starting something completely new it's a key thing here is *it's not completely new* (ahlct004)

In **deic v-link MN**, the noun is typically followed by a relative clause, which helps identify instances of relevance marking in much the same way as do relevance adjectives in **deic v-link adj MN**.

(33) that's a a sort of thing that i would emphasize vis à vis the exam (sslct012)

#### 4.2.2. *MN v-link*

This is not only the predominant noun pattern but also the second most common type of relevance marker overall. Interestingly, its prevalence stems from repeated use by many lecturers, sometimes making it seem more like an interjected discourse marker. **MN v-link** seems fairly 'casual' compared to patterns with an adjective (Crawford Camiciottoli, 2004, p. 94) and makes the lecturer appear to essentially be a conversationalist "with an academic hat on" (Mike McCarthy, personal communication, 2009).

The pattern encompasses both unmodified, ‘idiomatic’ instances (Biber, 2006a; Sinclair, Jones, Daley, & Krishnamurthy, 2004) (ca. 61%) (34) and ones postmodified by a prepositional phrase (ca. 7%) (35) or relative clause (ca. 32%) (36). In the latter case, notable collocations are *point* and *make* (cf. also Swales, 2001) or *note*, and *thing* with the mental verbs *remember* or *bear in mind* (37).

(34) the thing is that the one of them is not good (pslct034)

(35) the point *about it* is they contain direct bonds (pslct003)

(36) now the point *i'm making* is this (ahlct034)

(37) the thing *you have to remember* is there's no such thing as the heritability (lslct001)

For listeners, the unmodified instances may be particularly hard to recognize as relevance markers, although prosodic and non-verbal clues possibly facilitate their recognition.

#### 4.2.3. *adj MN v-link*

This pattern is probably one that intuitively comes to mind when imagining how lecturers highlight important points. Indeed, it seems particularly listener-friendly in that it prospectively and explicitly signals relevance. Nevertheless, our data only partly confirm such intuitions: although it is much more frequent than the retrospectively orientated **deic v-link MN** and **deic v-link adj MN**, it is by no means as popular as the often less explicit **MN v-link**.

Similar to **deic v-link MN** and **deic v-link adj MN** the noun is usually postmodified by a prepositional phrase (38) or relative clause (39).

(38) the main point *about this* is that we've got this whole zoo of of different gauges (pslct028)

(39) now the essential questions *that i want to address in talking about this model* are the following (pslct012)



#### 4.2.4. *there v-link MN* and *there v-link adj MN*

Instances of patterns with existential *there* are infrequent and rarely contain a relevance adjective. Most contain postdeterminers indicating enumeration, thus blurring the boundary between ‘pure’ discourse organization and relevance marking; however, clausal postmodification suggests a relevance reading.

(40) there are two main ideas *that you need to keep in mind* (ahlct024)

#### 4.3. *Verb patterns*

In verb patterns, which are mainly prospectively orientated, mental and communication verbs occur with first and second person subject pronouns or without subjects (imperatives and *to*-infinitive clauses). Verb patterns (see Table 5) seem the most interactive relevance markers as they explicitly address the listeners and/or include them in the unfolding discourse.

**Table 5**

Verb patterns, examples and frequency (N=420).

Verb patterns	Examples	Frequency	(%)
1s pers pron V n/clause	i want to stress this point (lslct036)	69	(16.4)
	i do just want to stress it is absolutely vital that you read this (ahlct027)		
1p pers pron V n/clause	we're interested in the gradient here (pslct030)	29	(6.9)
	we need to remember we're talking about proper names (ahlct033)		
2 pers pron V n/clause	you might want to remember it for the exam (pslct029)	41	(9.8)
	you should also note that significance depends on the sample size (lsct015)		
1s pers pron V clause + 2 pers pron V n/clause	i want you to focus your attention on this column here (lslct008)	10	(2.4)
	i ask you to bear in mind that these people are fairly intelligent (lslct022)		
TO-INF n/clause	now just to reinforce again this idea of what H-nought is (pslct036)	6	(1.4)
	just to emphasize that this is a genuine organometallic compound (pslct003)		
V n/clause	just remember this (lslct028)	265	(63.1)
	notice this is again a matter of express consent		

Mental verbs predominate and denote memory processes (*bear/keep in mind, forget, go away with, remember*), direct attention (*bring/draw/focus/pay attention, be interested in, note, notice, take away, take note of*) or refer to knowledge acquisition (*know, learn, register, understand*). Their predominance is largely due to the extremely frequent *remember* (230 instances). The communication verbs can be situated along a cline of emphatic force ranging from the clearly emphatic *emphasize/ise, stress, reinforce, place emphasis* and *impress on, over point out*, and the least emphatic *make a/the point* and *note*. Although the less emphatic verbs are similar in meaning to non-emphatic *say*, the counted instances have a co-text suggesting a relevance reading (see also Hunston, 2002) (41).

- (41) i must interrupt myself at that point because i do see you writing away  
fiercely i want to *make a point* you get a lot of those approaches again  
throughout this course really try to listen today don't take so many notes  
(ahlct030)

Overall, clausal is much more frequent than nominal complementation and is chiefly realized by a *that*-clause (42). Finite verb phrases are generally in the simple present and often contain deontic modals (e.g. *have to, need, should*) (42). In imperative and *to*-infinitive clauses, similar effects are achieved by *please, do* (43) and *just*.

- (42) we *have to* bear in mind here in CELTE that we are working in a multicultural group (sslct040)

- (43) *please please do* learn this (lslct005)

It is worth noting the occurrence of *just* (46 instances) with verb patterns. It precedes all instances of **TO-INF n/clause**, which announce the lecturer's communicative intent (44), and sometimes appears with speaker-orientated **1s pers pron V n/clause** (45) and the cognitive directive **V n/clause** (46).

- (44) *just* to emphasize that this is a genuine organometallic compound (pslct003)

- (45) i *just* want to reinforce three things that we've already talked about (lslct039)

(46) *just* bear in mind thes they're not absolute values (lslct027)

This polysemous restrictive adverb (cf. Lin, 2010; Lindemann & Mauranen, 2001; Grant, 2011) here seems to primarily mitigate directive force while also adding emphasis (Biber et al., 1999; Charles, 2009). Other devices used to express cognitive directives more democratically include the much rarer *please*, *let + me/us*, modals (*might*, *can*, *could*) and *would like* (instead of *want*).

#### 4.3.1. 1s pers pron V n/clause

**1s pers pron V n/clause** is exceptional in that it explicitly attributes the evaluation to the speaker, combining the first person singular pronoun *I* with communication verbs, (mostly *point out*, *emphasize/ise* and *stress*). These verbs sometimes take *want* (or *would like*); more rarely, modals expressing advisability (47) or the intention to highlight (*be going to*, *will*) occur.

(47) *but i should stress that i don't lecture out of Grant* (sslct032)

The simple past and present perfect are often used to refer back to previous discourse which is then highlighted (48). The few relevance markers with present progressive verbs occur as the conclusion of a topic or before a justification for the importance of the point (49).

(48) *again i've pointed out* ah that viruses may effect both humans and animals  
(lslct035)

(49) *now i am stressing* all this because many of my colleagues construction  
economists disagree with this proposition (sslct006)

Although these instances resemble pure discourse organization, they were counted because listeners would probably perceive them as relevance markers.

#### 4.3.2. 1p pers pron V n/clause

This infrequent pattern combines the first person plural pronoun *we* with mostly mental verbs (e.g. *note*, *remember*), creating a sense of joint cognitive endeavour and apparently involving the listeners in the lecture. Most instances of *be interested in* occur here and establish joint visual attention (50). Deontic modals (51) are common.

(50) *so we're interested in the gradient here at two-seven-three* (pslct030)

(51) *we need to remember we're talking about proper names* (ahlct033)

#### 4.3.3. 2 pers pron V n/clause

Here, the listeners are directly addressed and directed to perform a mental action (mostly represented by *remember*), which probably makes this pattern one of the clearest relevance markers. The inclusion of deontic modals makes the directive force obvious (52); in fact instances without these normally appear more like pure discourse organization (53) and were thus not counted.

(52) *you have to remember at the time you couldn't just say Protestantism*  
(ahlct010)

(53) *you remember we have three types of problems* (pslct018)

#### 4.3.4. 1s pers pron v clause + 2 pers pron V n/clause

This rare, explicit pattern consists of a main clause (**1s pers pron v clause**) expressing the lecturer's desire for the audience to perform the mental activity expressed in the subclause (**2 pers pron V n/clause**). Nominal and clausal complementation occur fairly equally.

(54) *i'll just ask you to remember this* (sslct007)

#### 4.3.5. TO-INF n/closure

The other rare pattern, **TO-INF n/closure**, is an adverbial clause indicating the lecturer's purpose and can be considered a casual equivalent of **1s pers pron V n/closure**. Both communication (55) and mental (56) verbs occur and all instances are preceded by *just* (see above).

(55) i've written in the zero formally just to stress that that's a wall that doesn't move (pslct022)

(56) just to draw your attention to one small piece of this poem (ahlct011)

#### 4.3.6. V n/closure

This imperative pattern containing a mental verb and mostly clausal complementation is the most frequent of all relevance markers. This is probably due to various factors, most of which are shared by the second most common relevance marker, **MN v-link**. First, it is reminiscent of conversational speech and is a particularly economical way of marking relevance. Second, some lecturers use it very frequently. Third, instances with the predominant *remember* are multifunctional (cf. Tao, 2001), meaning for instance 'I want you to remember' (relevance marker) or 'do you remember' (checking recollection). While discourse participants can use prosodic clues and their knowledge of what was taught previously to help distinguish functions, we could only use co-textual clues. For instance, in (57) the discourse immediately preceding *remember* facilitates its recognition as a relevance marker.

(57) *if you forget everything else i say just* remember that kidney failure causes high blood pressure (lslct033)

Further, in utterance-initial position (58) *remember* is usually followed by complementation, rendering a relevance reading more probable than when it occurs alone utterance-finally as a 'tag' (59) (Tao, 2001, p. 128) or as a 'parenthetical insertion' (Tao, 2001, p. 127) (60). Instances such as (59-60) were thus not counted. Admittedly, however,

bringing previous information to bear on a new point may make the ‘reactivated’ content more prominent in the listener’s mind.

(58) and *remember* that most developing countries are small (sslct008)

(59) there is a class switch *remember* (lslct006)

(60) the papilli *remember* are part of a drainage system of the kidney (lslct032)

*Remember, keep/bear in mind* and *do not forget* direct students to take into account previous discourse or knowledge when considering a new point or specifies what students should take away from the lecture.

(61) now what did art historians do with that and *bear in mind* Marx was quite quiet about the work of art (ahlct030)

(62) *don't forget* they're cells and have some water within them themselves (lslct026)

*Note* and *notice* are also common; most instances seem to draw attention to visual points.

(63) here is the source and the destination operands but note that they are specified by quoting the the address of the registers (pslct007)

(64) notice that these results are different from the results with the rats pressing levers (sslct027)

#### 4.4. Adverb patterns

Adverb patterns (see Table 6) consist of an adverb phrase conveying a judgement of importance.

**Table 6**

Adverb pattern, example and frequency

Adverb pattern	Example	Frequency
ADV	<i>essentially</i> the two points to note are these (pslct006)	15

When functioning as relevance markers, the adverbs – notably *essentially*, *importantly* and *significantly* – appear clause-initially and mark relevance prospectively. They tend to be preceded by *but* (65) or *and* (66), which mark the relationship with the preceding discourse (see also Bondi, 2008). Furthermore, the prevalent *importantly* is normally premodified by an adverb denoting a comparison in terms of importance with the previous discourse (66).

(65) we'll come back to this topic a little later but *essentially* what i'm saying is that you could have a word instruction which is sort of adding two data registers together (pslct007)

(66) so it distinguishes between corona viruses and rhinoviruses and *more importantly* it adapts to the challenge of infecti an infection (lslct036)

Although (like adjectives) adverbs appear obvious candidates for expressing attitudinal evaluation (Bondi, 2008), their rareness as relevance markers is perhaps not surprising. On the one hand, stance adverbs in university classroom teaching have been found to mainly express epistemic (e.g. *probably*) rather than attitudinal stance (Biber, 2006b). On the other hand, attitudinal stance adverbs vary in their scope and hence status as relevance markers. As relevance markers they evaluate the proposition that follows. In contrast, the instances in (67), (68), and (69) were not counted as *importantly* evaluates the importance of an action (67), *significantly* premodifies an adjective and relates to statistical significance (68), and *essentially* may be interpreted as expressing the lecturer's intention not to go into detail (69). Given that the audio or video files were not consulted, we have taken a conservative approach and retained only instances where a relevance reading appears likely.

(67) we need these kind of externally acquired disciplines to protect us not just from the subject and from others but *most importantly* from ourselves (ahlct012)

(68) the incidence of disease X in Warwickshire is *significantly* lower than in the rest of the U-K (lslct015)

- (69) the systemic herbicides interfere with the natural hormones in the plants and *essentially* they make them grow too fast so the plants can't take in enough nutrients from the or water from the soil (Islct004)

#### 4.5. Assessment-related expressions

A few instances (seven) clearly signaling important points did not fit any pattern. These all point out the likelihood of being assessed on particular content and contain *exam* or *examine*.

- (70) okay the first one is the consultation procedure and this one encapsulates the the the *exam* question which you often get (sslct025)

- (71) it is something that you can be *examined* on (Islct014)

Although the lexemes *exam*, *examination*, *test*, and *question* were searched in the whole corpus, extremely few references to assessment were found. This is remarkable considering that this is one of the best ways to make students pay attention and that such pointers are very useful in guiding study. However, we lack information about the position of lectures within lecture series, which is important because assessment talk may be concentrated in first and last lectures.

## 5. Conclusion

This paper presents a comprehensive overview of the lexicogrammatical devices marking the importance or relevance of lecture points. Due to the large corpus and multi-pronged methodology, it offers a greater variety of relevance markers than has hitherto been the case (Crawford Camiciottoli, 2004, 2007; Swales & Burke, 2003). The findings could be incorporated into EAP courses for non-native speaker lecturers and students and are also valuable input for subject lecturer training (especially in multilingual settings) and educational research. While EAP courses aimed at improving students' lecture comprehension and note-taking are already fairly common, EAP courses for lecturers seem at present rather rare. However, continuing internationalization combined with a growing recognition of the need to support lecturers in using English for the specific purpose of



lecturing will likely lead to an increase in such courses. In Belgium, for instance, Ghent University provides an ‘English for Lecturers’ course designed by the first author.

As regards EAP course design, teaching students and lecturers to respectively recognize and mark important points seems crucial; yet, published EAP materials typically either do not list many lexicogrammatical relevance markers and use examples that are not corpus-based or they focus on prototypical but less common markers such as *the important point is*. However, this study shows there is a wide range of relevance markers, the most frequent of which (**MN-link**, **V clause**) may not be those that intuitively come to mind. It would thus be useful to help students recognize a variety of authentic relevance markers. In doing so, we may want to pay special attention to popular but multifunctional devices such as **MN-link** and **V clause**. With regard to materials design, it is further worth noting that fuller contexts of the markers can be freely searched in the BASE open corpus through Sketch Engine.

The authentic relevance markers provided here can further be used in experimental research on listening comprehension and note-taking. Educationalists will also be interested in the general picture of relevance marking which emerges. More specifically, certain findings may be surprising (such as the rareness of references to assessment) and the variation in clarity as well as textual and interactive orientation of relevance markers may inform courses on effective lecture delivery.

Nevertheless, we recognize this study is limited in a number of ways. First, it surveys only overt lexicogrammatical devices, although there are many other ways to highlight points, such as intonation, stress, pausing, speech rate, volume, visual and non-verbal cues, discourse markers, repetition, questions and grammatical constructions such as clefting. Second, to keep the study manageable we have focused on metadiscursive and metasemiotic relevance marking, although the evaluation of entities outside the discourse (e.g. *an important philosopher*) possibly also focuses attention on the lecturer’s talk about such entities. Third, information on points lecturers intended to highlight or listeners perceived as important would be illuminating but could not be obtained. This seems an inevitable limitation of using large, ready-made corpora. For small-scale studies, this could

partly be resolved by getting other students to read or watch the lecture to identify highlighted points or by analysing which points occur in the conclusions.

This investigation opens up various avenues for further research into relevance marking. For instance, it would be interesting to establish how prosodic, non-verbal and visual cues combine with lexicogrammatical relevance marking. Another useful area of investigation is the variation in relevance marking across speakers (e.g. idiolectic variation, or variation across British, American or L2 speakers of English), disciplines, lecture cultures (e.g. MICASE) and academic speaking genres (e.g. conference presentations). Finally, we are currently researching how less important points are marked, since these indications also help students distinguish between more and less important information.

## Appendix

Main elements in relevance marker patterns and expressions

<b>Adjectives (in adjective and noun<sup>6</sup> patterns)</b>	<b>Verbs (in verb patterns and assessment-related expressions)</b>
Basic	Be interested in
Big	Bear in mind
Critical	Keep in mind
Crucial	Bring attention to
Essential	Draw attention to
Go home	Focus attention on
Important	Emphasize/ise
Interesting	Examine
Main	Pay attention to
Significant	Forget
Take home	Go away with
Of interest	Impress on
vital	Know
whole	Learn
worth	Make a/the point
	Merit consideration
<b>Adverbs (in adverb patterns)</b>	Note
Essentially	Notice
Importantly	Place emphasis
Significantly	Point out
	Register
	Reinforce
<b>Nouns (in noun and adjective patterns and assessment-related expressions)</b>	Remember
Bit	Stress
Bottom line	Take away
Exam	Take home
Idea	Take note of
Message	Understand
Moral	
Point	
Question	
Thing	

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<sup>6</sup> This includes pre-and post nominal modifiers.

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